

REMARKS/ARGUMENTS

This case has been carefully reviewed and analyzed in view of the Official Action dated 1 November 2005. Responsive to the rejections made in the Official Action, Claims 6 and 13 have been amended to clarify the combination of elements which form the invention of the subject Patent Application and Claims 10 and 17 have been amended to correct the language thereof. Claims 1-5, 11 and 18-20 have been previously canceled.

In the Official Action, the Examiner rejected Claims 6-7 and 13-14 under 35 U.S.C. § 102(e), as being anticipated by Kikuchi, et al., U.S. Patent 6,571,361. Claims 8, 10, 15 and 17 were rejected under 35 U.S.C. § 103(a), as being unpatentable over Kikuchi, et al. in view of Watanabe, U.S. Patent 6,310,897.

Before discussing the prior art relied upon by the Examiner, it is believed beneficial to first briefly review the method of the invention of the subject Patent Application, as now claimed. The invention of the subject Patent Application is directed to a method of decoding a video bitstream that includes forward error correction (FEC) codes. The method includes the step of receiving the video bitstream, which includes video data, at least one data packet and at least one header, at least one of the FEC codes corresponding to a subset of the video data is included in the data packets and a header code that specifies the subset of video data to which one or more of the FEC codes correspond, the subset of video data is one of motion vectors, DC coefficients, and header information. The method

further includes the steps of retrieving video data from the video bitstream, and evaluating the video data to determine the presence of a corrupt portion thereof, and determining the correspondence of the corrupt portion of the video data and the associated data packet. The method includes the step of retrieving at least one of the FEC codes from a data packet of the video bitstream as specified by the header code retrieved from the data packet responsive to the determination of correspondence of the corrupt portion of the video data with the FEC coded portion. Still further, the method includes the step of correcting the corrupt portion of the video data in accordance with the at least one of the FEC codes to recover uncorrupted video data therefrom. By this method, a minimum of extra data is added to the video bitstream, that additional data being added in a data packet so that the video bitstream is backward compatible with decoders not having forward error correction capability.

In contradistinction, the Kikuchi, et al. reference is directed to a coding system having error correction/detection that minimizes the number of extra bits which must be added for that feature by eliminating FEC header information. It appears that the Examiner has misinterpreted the disclosure of the reference and/or the claimed limitations of the invention of the subject Patent Application. It is respectfully submitted that the reference to coefficients in Fig. 4 of the reference that the Examiner equates to Applicant's DC coefficients is incorrect. The output code string 205 which is shown in Fig. 4 includes residual DCT coefficients 305,

which are coefficients derived from a discrete cosign transformer (DCT), column 15 lines 12-15 and column 13, lines 7-13. Whereas in the invention of the subject Patent Application, the DC coefficients correspond to DC components of the VOP, corresponding to DC data such as luminosity, paragraph 116 of the subject Patent Application Publication. Further, the Examiner's reference to the header information shown in Fig. 11 is not part of the references' bitstream, but an illustration of "conventional error correction/detection switching coding system" (prior art), column 11, lines 20-22, and described in the Background, column 3, lines 6-29.

As shown in Fig. 3 of the reference, the coding unit 200 provides an output code string 205, which string provides the error correcting/detecting code at the end part of a frame, and the FEC kind identifying signal representative of the kind and the number of the error correcting/detecting codes "does not exist in the output code string 205 of Fig. 4", column 14, lines 29-39. The FEC kind identifying signal representative of the kind and number of the error correcting/detecting codes is the FEC header information included in the invention of the subject Patent Application, and for which the reference teaches away from such inclusion.

Nowhere does the reference disclose or suggest the inclusion of a header code that specifies the subset of video data to which one or more of the FEC codes correspond, the subset of video data being limited to one of motion vectors, DC

coefficients, and header information, as now claimed. In fact, no reference to providing FEC codes for the DC coefficients is disclosed. Still further, the reference while disclosing the inclusion of FEC codes for such things as motion vectors and video header information, also includes FEC codes for DCT coefficients, and thus does not disclose or suggest the limited subset of the video data as now claimed. Further, nowhere does the reference disclose or suggest placing the FEC codes and an FEC header code in as systematic FEC codes combined in a data packet, as now claimed. In fact, the reference teaches away from such a method in that it places the original video data and the FEC codes combined in a non-systematic code, as is conventional. Thus, the referenced method requires a specific decoder which is matched to the encoding scheme and is not backward compatible, as provided in the method of the invention of the subject Patent Application.

As the reference fails to disclose each and every one of the method steps of the invention of the subject Patent Application, as now claimed, it cannot anticipate that invention. Further, as the reference fails to suggest such a combination of method steps, and in fact teaches away from that combination, it cannot make obvious that invention either.

It is respectfully submitted that the Watanabe, et al. reference is directed to a data transmission method for transmitting encoded video pictures using a wire communication network. The reference discloses an encoding apparatus, shown in

Fig. 7, wherein arbitrary information can be designated as important information to be added by the user from outside the encoding processing change information circuit 306; however, this has nothing to do with FEC codes. In the transmission of the bitstream through a network which is vulnerable to errors, a refresh operation without prediction is performed at predetermined intervals. That refresh operation of a single frame is carried out over the period of a multiplicity of frames, by refreshing only a portion of the frame of each of a plurality of consecutive frames, sending a slice of the refresh frame in the consecutive frames. The data which is to be utilized for refresh is designated as being “important information”, and thus the user is able to input information into the bitstream slice for refresh, which again has nothing to do with FEC codes and a header therefore.

Even if the Watanabe, et al. reference disclosed the use of FEC codes and a header therefore being input in such a manner, one skilled in the art would not look to that disclosure for modifying the method of Kikuchi, et al. In fact, it can only be through the improper use of “hindsight,” using Applicant’s own disclosure as a “blueprint” for such combination, that the Examiner would suggest such a combination. The Kikuchi, et al. reference relies on locating the FEC codes in a particular location in the frame in order to obviate the need for headers to identify the kind and number of FEC codes; it is the heart of Kikuchi, et al.’s invention to do just that. Thus, to then modify the system in accordance with the encoder of Watanabe, et al., would destroy that invention, assuming that in fact Watanabe, et

al. discloses placing FEC code data in user data video packets of the type allowed in the MPEG4 standard.

Therefore, as neither reference discloses or suggests the combination of method steps as provided by the invention of the subject Patent Application, they cannot make obvious that invention, as now claimed.

For all of the forgoing reasons, it is now believed that the subject Patent Application has been placed in condition for allowance, and such action is respectfully requested.

Respectfully submitted,
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Dated: 24 Feb. 2006

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